

What is claimed is:

1. A substrate processing apparatus for removing an organic matter from a substrate by a remover for said organic matter, comprising:

5 a holding-and-rotating section for holding and rotating a substrate;
 a remover supplying section for supplying a remover for removing an organic matter to the substrate held by said holding-and-rotating section; and
 a gas supplying section for supplying an inert gas to the substrate held by said holding-and-rotation section.

10 2. The substrate processing apparatus according to claim 1, wherein
 said remover supplying section has a remover supplying tube for discharging a remover to a substrate, and

15 said gas supplying section has a gas supplying tube for blowing an inert gas on
 said substrate.

3. The substrate processing apparatus according to claim 2, wherein
 said remover supplying tube is set in said gas supplying tube.

20 4. The substrate processing apparatus according to claims 3, further comprising:
 an exhausting section set to a side of the substrate held by said holding-and-rotating section to exhaust a gas nearby said substrate.

25 5. The substrate processing apparatus according to claim 4, wherein
 said remover supplying section starts supplying a remover to a substrate and

when a predetermined time elapses, said gas supplying section starts supplying an inert gas to said substrate.

6. The substrate processing apparatus according to claim 5, wherein
5 said organic matter attached to said substrate is a reaction product produced when a resist film formed on said substrate changes in quality.

7. The substrate processing apparatus according to claim 6, wherein
 said reaction product is a polymer produced when a thin film present on the
10 surface of said substrate is dry-etched by using said resist film as a mask.

8. The substrate processing apparatus according to claim 1, wherein
 said gas supplying section is provided with a gas nozzle having a slit-like
 gas-blowing port for blowing an inert gas along the surface of the substrate held by said
15 holding-and-rotating section and said gas nozzle is set to a side of the substrate held by
 said holding-and-rotating section.

9. The substrate processing apparatus according to claim 8, further comprising:
 an aspirating section for aspirating a gas nearby the substrate held by said
20 holding-and-rotating section, said aspirating section being located opposite said gas
 nozzle with said substrate sandwiched in between.

10. The substrate processing apparatus according to claim 9, wherein
 said remover supplying section starts supplying a remover to a substrate and
25 when a predetermined time elapses, said gas supplying section starts supplying an inert

gas to said substrate.

11. The substrate processing apparatus according to claim 10, wherein
said organic matter attached to said substrate is a reaction product produced
5 when a resist film formed on said substrate changes in quality.

12. The substrate processing apparatus according to claim 11, wherein
said reaction product is a polymer produced when a thin film present on the
surface of said substrate is dry-etched by using said resist film as a mask.
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13. A substrate processing method for removing an organic matter from a
substrate by a remover for said organic matter, comprising the steps of:
holding and rotating a substrate;
supplying a remover for removing an organic matter to said rotating substrate;
15 and
supplying an inert gas to said rotating substrate.

14. The substrate processing method according to claim 13, wherein
it is started to supply a remover to said substrate and when a predetermined
20 time elapses, it is started to supply an inert gas to said substrate.

15. The substrate processing method according to claim 14, wherein
said organic matter attached to said substrate is a reaction product produced
when a resist film formed on said substrate changes in quality.
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16. The substrate processing method according to claim 15, wherein
said reaction product is a polymer produced when a thin film present on the
surface of said substrate is dry-etched by using said resist film as a mask.